

July 29, 2003

Mr. Sam L. Brenneke
2258 Grissom Drive
St. Louis, MO 63146-2067

Re: Exempt Construction and Operation Status, **E 097-17178-00500**

Dear Mr. Brenneke:

The application from Shell Oil Products, U.S., received on April 17, 2003, has been reviewed. Based on the data submitted and the provisions in Sections 1 and 2 of 326 IAC 2-1, it has been determined that the following soil remediation operation, to be located at 1005 North Shadeland Avenue, Indianapolis, Indiana, is classified as exempt from air pollution permit requirements:

- (a) One (1) soil vapor extractor, used to extract at a maximum 13.42 lbs per day of VOC and/or HAP from petroleum contaminated soil to the atmosphere.

The following conditions shall be applicable:

- (a) 326 IAC 5-1-2 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
 - (1) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

This exemption is the first air approval issued to this source.

Any change or modification which may increase the potential VOC emissions to ten (10) tons per year or more, a single HAP emission to one (1) tons per year or more, or a combination of HAP emissions to two and five-tenths (2.5) tons per year or more from the equipment covered in this exemption must be approved by the Office of Environmental Services (OES) and Indiana Department of Environmental Management, Office of Air Quality (IDEM, OAQ) before such change may occur.

Sincerely,

Original Signed by John B. Chavez
John B. Chavez
Administrator

HMS

cc: File
Permits - Holly Stockrahm
Compliance - Matt Mosier
OAQ - Mindy Hahn

Indianapolis Office of Environmental Services

and

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for Exemption

Source Background and Description

| | |
|------------------|---|
| Source Name: | Shell Oil Products, U.S. |
| Source Location: | 1005 North Shadeland Avenue, Indianapolis, IN 46219 |
| County: | Marion |
| Exemption No.: | E097-17178-00500 |
| SIC Code: | 2911 |
| Permit Reviewer: | Holly M. Stockrahm |

The Office of Environmental Services (OES) and the Indiana Department of Environmental Management, Office of Air Quality (IDEM, OAQ) has reviewed an application from Shell Oil Products, U.S. relating to the construction and operation of one (1) soil remediation operation described as follows:

- (a) One (1) soil vapor extractor, used to extract at a maximum 13.42 lbs per day of VOC and/or HAP from petroleum contaminated soil to the atmosphere.

Recommendation

The staff recommends to the Administrator that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 6, 2001, with additional information received on January 2, 2003.

Emissions Calculations

The calculations of the potential to emit of VOC from the soil vapor extractor have been verified. The Average VOC loading rate is $4.23 \text{ gms/min} \times 60 \text{ min/hr} \times 0.002204 \text{ lb/gm} = 0.559 \text{ lb/hr} = 13.42 \text{ lb/day} = 2.45 \text{ ton/yr}$

Based on the Shell Oil MSDS for Shell SU-2000 (R) Super Unleaded Gasoline, the gasoline has components of benzene, toluene, ethyl benzene, and xylene (BTEX), all of which are HAPs. Xylene and toluene each make up the largest possible percentage of HAP (0 - 25%) in the gasoline which makes the worst case single HAP emission equal to the following:

Total ton/yr VOC * %HAP = total ton/yr single HAP

$2.45 \text{ ton/yr VOC} \times 0.25 = 0.61 \text{ ton/yr single HAP}$

Total Potential Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

| Pollutant | Potential Emissions (tons/year) |
|--------------|------------------------------------|
| VOC | 2.45 |
| HAP combined | 2.45 |
| HAP single | 0.61 |

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of the pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.

County Attainment Status

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Marion County has been classified as attainment or unclassifiable for PM₁₀, SO₂, NO_x and CO. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

| Pollutant | Emissions (ton/yr) |
|------------------|-----------------------|
| PM | less than 1 |
| PM ₁₀ | less than 1 |
| SO ₂ | less than 1 |
| VOC | 2.45 |
| CO | less than 1 |
| NO _x | less than 1 |

- (a) This existing source is an exemption because it is not one of the 28 listed source categories and no regulated pollutant is emitted at a rate of 2.5 tons per year or more.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 program.

Federal Rule Applicability

There are no New Source Performance Standards (40 CFR Part 60)(326 IAC 12) applicable to this facility.

This source is not a major source of HAPs, so no National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63) is applicable to this facility.

State Rule Applicability

326 IAC 5-1-2 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-1 (Particulate Emission Limitations for Nonattainment Areas)

The source has a PM potential to emit of less than one hundred (100) tons per year, therefore, 326 IAC 6-1-2 does not apply.

326 IAC 6-3-2 (Particulate Limitations)

Soil Vapor Extraction emits a negligible amount of PM, if any, therefore, 326 IAC 6-3-2 does not apply.

326 IAC 2-4.1 (Air Toxics)

The source has a HAP potential to emit of less than ten (10) tons per year of a single HAP, and less than twenty-five (25) tons per year of a combination of HAPs, therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8-1-6 (BACT)

The source has a VOC potential to emit of less than twenty-five (25) tons per year, therefore, 326 IAC 8-1-6 does not apply.

Conclusion

The construction of this soil remediation operation will be subject to the conditions of the attached proposed **Exemption No. 097-17178-00500**.